

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012030**Date Inspected:** 22-Jan-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 10

This QA Inspector randomly observed the following work in progress in Bay 10:

SMAW repair welding of weld joints SSTL4-1B/L-49, 53 located inside PCMK south tower, lift 4, corner angle plate to skins B/C, at 4 locations from 136.5M to 137M. Welders were identified as 050038, 040581. ZPMC QC was identified as CWI Du Zhi Qun (QC1). The welding variables recorded by QC1 appeared to comply with WPS-345-SMAW-3G(3F)-repair. QC1 informed this QA Inspector that these repairs were in response to indications observed during magnetic particle inspection (MT) performed by ZPMC technicians.

In addition to the above noted weld metal excavations this QA Inspector observed the following 2mm to 3mm deep excavations into base metal as follows: skin B at approximately 131.75M (Y=255 from top of 131M double diaphragm, X=55 to 90 from closest leg of fillet weld at SSTL4-1B/L-49), skin C at approximately 131.75M (Y=300 from top of 131M double diaphragm, X=45 to 80 from closest leg of fillet weld at SSTL4-1B/L-53). QC1 informed this QA Inspector that the above noted excavations were in response to ZPMC magnetic particle testing (MT) and that QC1 had no ZPMC weld repair report regarding the above noted base metal excavations or repair. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Nan.

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Bay 11

No welding was observed being performed in Bay 11.

Blast Shop #1

This QA Inspector and Caltrans QA Inspectors Paul Dawson and Mike Hasler performed random visual inspections of the upper interior areas of OBG Segment 8CW from the segment seam at 7BW to panel point 53 as per ZPMC request number 2553. ZPMC had recently completed grit blasting of these areas and the steel surfaces were mostly free of rust oxide and other contaminants that had previously obscured portions of the plate and weld surfaces. After ZPMC QC inspectors (QC) and ABF representatives (ABF) had performed similar inspection and marking of minor surface rejections, this QA Inspector visually observed approximately 100 locations that required grinding to resolve visual weld spatter, arc strikes, shallow nicks, scrapes, and other minor surface rejections in addition to the minor surface rejections marked by QC and ABF. The minor surface rejections observed by this QA Inspector were marked with colored chalk and ZPMC had several workers using grinders to remove the visually unacceptable areas and ZPMC had assigned an MT inspector to perform MT of the arc strike removal areas upon completion of grinding the area marked. The obvious arc strikes were marked for grinding and MT. This QA Inspector also observed that QC and ABF had performed their inspection in less than 30 minutes. This QA Inspector and the other two above noted QA Inspectors performed our inspections in approximately two hours and, as noted above, observed numerous unacceptable minor surface rejections in addition to what had been marked by QC and ABF. At least 30 arc strikes were observed by this QA Inspector in addition to approximately 5 arc strikes marked by QC and ABF.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No significant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest, 150-0042-2360, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet,George	Quality Assurance Inspector
Reviewed By:	Dawson,Paul	QA Reviewer
